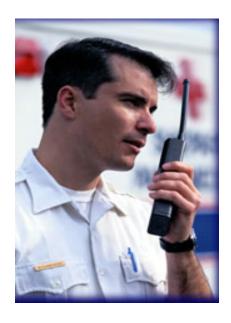
IT'S TIME TO TALK: ACHIEVING INTEROPERABLE COMMUNICATIONS FOR AMERICA'S FIRST RESPONDERS



"Almost three years after 9/11, it is long past time our Police, Fire, and Emergency personnel have the equipment to talk to each other."

Commissioner William Fox, Metropolitan Fire Association, New York First Response Coalition Member

THE FIRST RESPONSE COALITION OCTOBER 2004

Executive Summary

America's first responders today face a crisis that drastically reduces their ability to effectively address emergency situations. Across the country, public safety departments cannot talk to one another, because their radios and communications systems are not interoperable. Different technologies, a lack of radio spectrum and frequencies, uncoordinated work on finding solutions, and insufficient funding have all contributed to this problem. Police, fire, and emergency medical service (EMS) departments cannot communicate with each other and local departments are unable to link their communications systems with state and federal emergency response agencies.

Solving the interoperability problems is no easy task. New equipment, training, and additional spectrum are all required to achieve communications interoperability. Most importantly, providing interoperable communications to first responders will require enormous financial support. It is estimated that \$18 billion would be needed to replace all the public safety communications equipment nationwide. Even with these hurdles, the problem must be resolved as quickly as possible. The lack of communications interoperability puts first responders and the communities they protect in danger.

The First Response Coalition believes communications interoperability must a national priority and addressed in any public safety communications plan. The First Response Coalition consists of citizens, individual first responders, and advocacy groups who are particularly concerned about first responders having the best possible communications capabilities presently available. For more information, visit www.firstresponsecoalition.org.

The First Response Coalition's Mission

The First Response Coalition is dedicated to pursuing effective public policies that can solve the interoperability problem and ensuring the nation's police, fire and EMS personnel possess the tools, equipment, and training necessary to serve and protect our communities. The Coalition believes that the Administration and Congress must demonstrate strong leadership on this issue, providing a roadmap to interoperability, instead of empty rhetoric.

Beyond the need for leadership and making interoperability a priority, first responders require funding. The First Response Coalition is working to ensure that interoperability efforts have sufficient resources to purchase new equipment, train public safety personnel, institute information-sharing programs with other departments, and engage in other activities that will contribute to the overall goal of communications interoperability.

With dedicated leadership and funding, the First Response Coalition believes that the interoperability crisis can be overcome. America's first responders must

be prepared for any emergency they could face, in order to continue protecting our communities with the exemplary service American's rely upon. The Coalition's efforts revolve around this central point – providing first responders with the tools to keep us all safe.

Introduction

In emergency situations, police, fire, emergency medical service (EMS) personnel, and other first responders rely on many different types of equipment to effectively operate and thus save lives. For example, police need bulletproof vests for protection in violent situations. Firefighters need hoses and water to douse blazes. EMS professionals need the latest medical technology and treatments to help victims.

Above all these needs, first responders must be able to talk to one another. And right now, they can't, because their radio and communications systems are not interoperable.

Creating interoperability between public safety communications systems is one of the biggest and most immediate challenges facing first responders. Today, many of America's first responders do not possess modern equipment that allows them to communicate seamlessly with other departments and jurisdictions. Police, fire, and rescue personnel from the same city or town often cannot talk to each other over a common network. All too common, there is little interoperability between the communications systems of local, state, and federal emergency response agencies.

Emergencies are not confined to one jurisdiction. Natural disasters, hazardous materials incidents, terrorist attacks, and other situations often demand the involvement of first responders from several cities/towns/counties and officials from state and federal agencies. Public safety departments need communications links to each other to respond to an emergency, to prevent one from happening, and to protect our communities.

The First Response Coalition offers this paper to illustrate the critical lack of communications interoperability available to first responders and to issue a call to action for government at all levels to address the interoperability crisis, in order to help save the lives of first responders and the people they protect. This report defines the scope of the communications interoperability crisis and examines the reasons public safety departments can't communicate. It also explores the barriers to interoperability, including cost, lack of coordinated planning, and scarcity of spectrum resources. There is a wide range of potential solutions to these issues, including technical and policy approaches, some of which are explained here. The paper concludes with the First Response Coalition's drive to make public safety communications interoperability a national priority and help

first responders to obtain the communications equipment and infrastructure they desperately need.

Interoperability Defined

Communications interoperability is the ability of first responders to seamlessly interact with other agencies and departments, sharing information and coordinating their responses to an emergency situation. Traditionally, this communication has taken place using radios and "walkie-talkies," but as technology evolves, more sophisticated systems that allow for data transmission, real-time video, and other advanced communications will become tools for first responders. Interoperability links these systems of different public safety departments together, through various technological means.

Simply put, when communications systems are interoperable, first responders can "talk" to each other, greatly improving their effectiveness.

The Interoperability Crisis

Communications interoperability is critical to coordinate an effective and immediate response to any emergency situation. If different public safety departments cannot communicate with one another, their employees' lives are at risk and the communities they serve are in heightened danger.

Today, the lack of interoperability has reached a crisis point. First responders across the nation cannot communicate with each other for a variety of reasons. Communications interoperability must be achieved, but efforts are limited by a lack of funds, uncoordinated endeavors from various departments at all levels of government, and the absence of a clear plan that will lead to interoperability. The First Response Coalition believes that a solution can be implemented, but only if the severity of the problem is recognized and decisive action taken.

September 11th Showed the Need for Communications Interoperability

The communications interoperability crisis among first responders was never more evident than during the attacks on September 11th. When it became clear that the World Trade Center towers were about to collapse, the New York City police received the call to evacuate the buildings. The fire and rescue personnel did not get this order, because they operated on a different radio system than the police. As a result, while sixty police officers died in the collapse, 343 fire and rescue personnel perished.¹ At the Pentagon, where emergency personnel from 50 different public safety agencies in Maryland, Virginia and the District of Columbia responded, no communication was possible between fire companies of

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¹ "On the Same Wavelength," State Government News, May 2003. http://www.csg.org/NR/rdonlyres/eqyxy7eieol6zdlncldokjsfqgkb5khyy2emy4iqyo74kgvrrpdmi3ug7ukugsx hxhb2tes52f2om4zsylb3ghdikdg/Onthesamewavelength.pdf

different jurisdictions, or to the Arlington County, VA fire chief who had overall command at the scene.2

Lack of Interoperability is a Long Term Problem

The September 11th attacks were not the first time emergency personnel had difficultly communicating with one another during a crisis. Following the 1995 bombing of the Alfred P. Murrah federal building in Oklahoma City, the four radio channels used by Oklahoma City police were overwhelmed. Communication with the emergency command post took place via cell phone until the cellular networks became congested.3 This problem goes back decades, as early as 1982, when public safety officials in the Washington, D.C. metro area began discussing the need for interoperable communications following the concurrent occurrence of the crash of Air Florida Flight 90 into the 14th Street Bridge, a Metrorail accident, and a severe snowstorm that pushed the communications systems to their limits. 4

The Current State of Communications Interoperability

In today's more dangerous world, first responders need the ability to communicate with other departments. Unfortunately, evidence suggests that there is a long way to go. The U.S. Conference of Mayors, in a June 2004 survey of 192 cities, found that 60% of respondents indicated that city public safety departments did not have interoperability with the state emergency operations center and 88% did not have interoperability with the Department of Homeland Security.⁵

Achieving interoperability is not an easy task. There are over 2.5 million first responders in the United States, comprising 18,000 state and local law enforcement agencies, 26,000 fire departments, and more than 6,000 rescue departments. Upgrading the communications systems of all these departments and providing the first responders with the necessary equipment and training requires a dedicated effort, one that cannot be delayed. The ability of all these entities to communicate in times of crisis is critical to protect the public and save lives.

The Quest for Interoperability in the United States and Europe.pdf

² "Rush is On to Boost Region's Response to Terror Attacks," Washington Post, September 30, 2001.

³ Viktor Mayer-Schonberger. "Emergency Communications: The Question for Interoperability in the United States and Europe." March 2002.

http://bcsia.ksg.harvard.edu/BCSIA_content/documents/Emergency Communications -

⁴ "Answering the Call: Communications Lessons Learned from the Pentagon Attack" Public Safety Wireless Network Program, January 2002.

http://www.safecomprogram.gov/admin/librarydocs7/Answering the Call Pentagon Attack.pdf

⁵ The United States Conference of Mayors Interoperability Survey, June 2004. http://www.usmayors.org/72ndAnnualMeeting/interoperabilityreport 062804.pdf

⁶ "When They Can't Talk Lives Are Lost," National Task Force on Interoperability, February 2003. http://www.agileprogram.org/ntfi/ntfi brochure.pdf

This problem cannot be solved overnight. But it is clear that this critical need must be addressed in a comprehensive way immediately, so all first responders can begin down the road toward interoperability.

Why Can't First Responders Talk to Each Other?

The reasons for the lack of public safety communications interoperability are many. While first responders across the country share the same mission, they do not share the same communications equipment, nor do their departments place the same emphasis on communications planning. Three main reasons exist for the interoperability problems currently experienced by first responders: lack of coordination, lack of spectrum, and most importantly, lack of funds.

Lack of Coordination and Planning

Historically, public safety departments have developed their own radio systems independent of other local entities and these systems operate on different frequency bands. There is also a lack of coordination between the different agencies regarding the type of equipment they utilize, especially when changes or upgrades to communications systems are made. If first responders in New York City and first responders in Albany want to have interoperable communications, they have to work together to achieve it. According to a November 2003 report from the General Accounting Office (GAO), "The fundamental barrier to successfully addressing these [interoperability] challenges has been the lack of effective, collaborative, interdisciplinary and intergovernmental planning. No one first responder group or governmental agency can successfully 'fix' the interoperability problems that face our nation. It will require the partnership, leadership, and coordinated planning of everyone involved."

This lack of coordination can lead to great disparities among public safety departments in equipment, training, and knowledge. For instance, one department could have new radios with different functionalities while another is still operating with 20 year old equipment. Not surprisingly, many of these communications systems are now technologically obsolete, as the June 2004 Conference of Mayors report shows. Among medium-sized cities (populations between 100,001 and 400,000) the average communications system is 11 years old.⁸ On September 11th, the radios used by New York City firefighters were the same that had been in operation eight years earlier in the 1993 World Trade Center bombing.⁹ With better planning, the communications systems could have

⁷ "Challenges in Achieve Interoperable Communications for First Responders," General Accounting Office (GAO), November 6, 2003. http://www.gao.gov/new.items/d04231t.pdf.

⁸ The United States Conference of Mayors Interoperability Survey, June 2004. http://www.usmayors.org/72ndAnnualMeeting/interoperabilityreport 062804.pdf

⁹ "Fatal Confusion" New York Times, July 7, 2002.

been upgraded to address the problems that plagued New York City first responders in both 1993 and 2001.

Lack of Spectrum

Another cause of interoperability problems in first responder communications systems is limited radio spectrum. Radio spectrum, the electromagnetic resource that carries signals and allows for wireless communications, is "owned" by the American people and managed by the federal government. The spectrum is divided into "bands" or "frequencies" and technologies are configured to operate in the appropriate band/frequency. The government allocates spectrum to commercial providers for cellular phones and television broadcasts, and to public safety departments (local, state, and federal) for their communications uses.

First responders predominantly use spectrum in the 800 megahertz (MHz) band, which is currently shared with commercial wireless providers, radio and television broadcasters, and other government agencies. All of the 800 MHz spectrum frequencies assigned to public safety departments are currently in use, leaving no room for expansion of current systems or new system development.

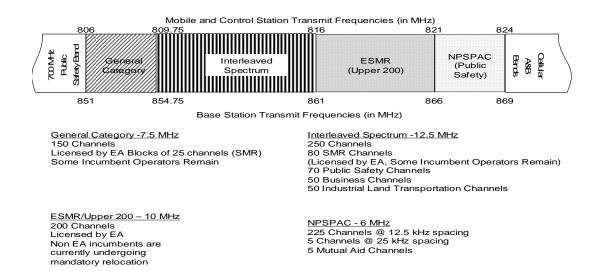
The spectrum allocated for use by public safety departments resides at the lower bandwidths. While new technologies, such as broadband networks and satellite global positions systems (GPS), enable greater communications features, they require operation at higher bandwidths. This patchwork and confusing spectrum allocation results in public safety communications being spread over ten different spectrum bands. In addition, as new equipment incorporates additional features and capabilities, first responders will need access to higher frequency bands, further dispersing public safety communications across the spectrum bands. This makes coordination and interoperability of communications exceptionally difficult.

Figure 1, a diagram released by the Federal Communications Commission (FCC), shows the current alignment of the 800 MHz spectrum band. This illustration demonstrates the overcrowding in the 800 MHz band and how public safety communications are limited and challenged by the situation.¹¹

¹⁰ "Why Can't We Talk?" National Task Force on Interoperability, February 2003. http://www.agileprogram.org/ntfi/ntfi_guide.pdf

¹¹ Federal Communications Commission, "FCC Adopts Solution to Interference Problem Faced by 800 MHz Public Safety Radio Systems" July 8, 2004. http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-249414A1.doc

Figure 1
The 800 MHz band is currently configured as follows:



Lack of Funding

The largest barrier to public safety communications interoperability is cost. While there is no definitive answer on how much a nationwide interoperable communications system would cost, there have been several estimates. The most cited figure for public safety communications interoperability costs is from a 1998 Public Safety Wireless Network (PSWN) study that indicated it would cost \$18.3 billion to *replace* the existing public safety communications infrastructure. A July 2004 U.S. Government Accountability Office (GAO) report on federal efforts to achieve interoperability stated that it would require several billion dollars over approximately 5-10 years to reach interoperability. The Office of Management and Budget (OMB) estimated communications interoperability solutions would cost more than \$15 billion and this figure might not include training of staff or maintenance of equipment. In the contraction of the cost.

Wherever the true costs of communications interoperability fall in this range of estimates, it is important to realize that neither federal nor state governments have currently appropriated funds in these amounts. How then can funding be

¹² "Land Mobile Radio Replacement Cost Study," PSWN 1998. http://www.safecomprogram.gov/admin/librarydocs/csdc_rpt.pdf

¹³ "Federal Leadership and Intergovernmental Cooperation Required to Achieve First Responder Interoperable Communications," Government Accountability Office (GAO) July 20, 2004. http://www.gao.gov/new.items/d04963t.pdf

¹⁴ Testimony of Karen Evans, Administrator for Electronic Government and Information Technology, Office of Management and Budget (OMB), before the House Subcommittee on National Security, Emerging Threats, and International Relations, November 6, 2003. http://www.whitehouse.gov/omb/legislative/testimony/evans/print/031106 evans.html

obtained and distributed to the thousands of public safety departments across the country?

The \$18 Billion Question

Achieving communications interoperability is a costly task. More than just replacing the radios used by emergency responders, every agency would have to replace the equipment in dispatch stations, transmitters, and relay stations. Merely replacing the equipment might not be the ultimate objective, but rather the goal is a transition to new and better technologies. In addition to the hardware, the 2.5 million first responders would have to be trained on the new systems. This training and transition must take place in real time, while emergencies continue to happen in all the cities and towns across the nation.¹⁵

The June 2004 U.S. Conference of Mayors report documents the costs of interoperability to cities:

- Cities under 100,000 reported an average of \$4.7 million in funding is needed to achieve full interoperability.
- Cities of 100,001 to 400,000 require approximately \$5.4 million to achieve full interoperability.
- Cities over 400,001 reported an average of \$30 million is needed to achieve full interoperability.¹⁶

Examples of Interoperability Costs

Some cities and states have begun to upgrade their public safety communications systems and have found the financial burdens to be substantial. For example, the city of Fort Lauderdale, Florida, estimated that a complete public safety communications system replacement would total roughly \$5 million to \$7 million. This is due to the fact that older equipment is not capable of being refitted for interoperability and would require replacement. Philadelphia, Pennsylvania installed a new citywide public safety communications system at a cost of \$52 million. Anne Arundel County, Maryland upgraded its emergency communications system, at a cost of \$35 million, and then had to spend another \$200,000 to fix remaining interference problems. The state of Rhode Island has estimated it will need about \$57 million to create an interoperable state-wide

¹⁵ Viktor Mayer-Schonberger. "Emergency Communications: The Question for Interoperability in the United States and Europe." March 2002.

¹⁶ The United States Conference of Mayors Interoperability Survey, June 2004. http://www.usmayors.org/72ndAnnualMeeting/interoperabilityreport_062804.pdf

¹⁷ Comments of the City of Fort Lauderdale, WT Docket 02-55, May 3, 2002.

¹⁸ Comments of the City of Philadelphia, WT Docket 02-55, February 10, 2003.

¹⁹ "Cell-Tower Detectives Fight Static" *Washington Post*, June 17, 2004, available at http://www.washingtonpost.com/ac2/wp-dyn/A47852-2004Jun16?language=printer

system. At a micro level, the modern "walkie-talkie" used by public safety departments can cost up to \$2,000 each.²⁰

Current Federal Funding Is Insufficient

In March 2002, to meet the interoperability funding challenges, President Bush promised to devote \$3.5 billion to first responders, including funds to upgrade public safety communications in the wake of 9/11.²¹ However, the vast majority of these funds have yet to reach public safety departments. In 2003, Congress appropriated only \$154 million for interoperability grants administered by several federal departments.²² In 2000, before 9/11 made interoperable communications a priority issue in the eyes of policymakers, Congress refused to fund an \$80 million Administration request for statewide public safety wireless communications system demonstration projects.²³ State and local governments, already pressed by budget shortfalls, have had to delay communications systems upgrades or fund them from limited taxpayer resources.

Without federal funding, communities cannot obtain interoperable communications systems for their first responders. Even though technical options exist, the technology is expensive and state and local governments cannot bear the burden alone.

The First Response Coalition believes that full funding for interoperability must be obtained. This above all else will contribute to solving the interoperability crisis. The high costs of obtaining interoperable equipment and training first responders makes funding a priority, and current allocations do not approach the necessary levels.

Numerous Solutions to the Interoperability Problem Exist

Communications interoperability problems cannot be solved with one approach, one technology, or one funding stream. Communities have different needs and different budgets. Public safety communications interoperability requires technology that can accommodate public safety departments with only a few first responders *and* major metropolitan units with thousands of users. In addition, public safety departments may wish to utilize new technologies that enable video imaging and high speed data transfers, advanced digital communications

http://www.csg.org/NR/rdonlyres/eqyxy7eieol6zdlncldokjsfqgkb5khyy2emy4iqyo74kgvrrpdmi3ug7ukugsxhxhb2tes52f2om4zsylb3ghdikdg/Onthesamewavelength.pdf

²⁰ "On the Same Wavelength," State Government News, May 2003.

²¹ President George W. Bush, Speech at Georgia Tech University, March 27, 2002. http://www.gatech.edu/presidential-visit/speech-full.html

²² "Federal Leadership and Intergovernmental Cooperation Required to Achieve First Responder Interoperable Communications," Government Accountability Office (GAO) July 20, 2004. http://www.gao.gov/new.items/d04963t.pdf

²³ Viktor Mayer-Schonberger. "Emergency Communications: The Question for Interoperability in the United States and Europe." March 2002.

systems, and commercial wireless platforms. These are potential sources of new interoperability problems and must be considered when public safety departments are analyzing their communications systems.²⁴ Today's "walkietalkies" used by first responders are likely to be unsuitable for these new technologies, certainly unable to transmit data and real-time images that newer devices can.²⁵

With the scope of the interoperability problem, federal coordination of efforts is necessary. Many localities might not possess the technical expertise to deploy advanced, interoperable communications and federal expertise would be very useful. While it would be impossible for the federal government to monitor the communications upgrades of every public safety department, work has been done to create standards and guidelines that will help first responders achieve communications interoperability.

Examples of Federal Interoperability Initiatives

The SAFECOM Program, within the Department of Homeland Security, is an umbrella organization for the many different federal initiatives that address communications interoperability. In March 2004, SAFECOM issued its "Statement of Requirements for Public Safety Wireless Communications and Interoperability." This report offered a variety of solutions, many having to do with general technical upgrades rather than specific interoperability resources. SAFECOM recommends using new technologies such as real-time voice conferencing, ensuring the devices are "smart" – able to self-diagnose technical problems and report the failures to a monitoring entity, and interfacing the new technologies with the current radio systems. While these are useful goals for achieving interoperability, not all could be implemented immediately by public safety departments across the country.

In another federal effort, three strategies were put forth in 2003 by the National Institute of Justice's AGILE program (now known as the CommTech program) to overcome communications interoperability problems. These recommendations gave first responders options for addressing their interoperability problems, depending on budgets, and technical capabilities. The strategies include:

- 1. Create one radio system that provides communications for multiple agencies:
- 2. Establish a common radio frequency so that transmissions from one radio system can be received by a different system; and

²⁴ "Challenges in Achieve Interoperable Communications for First Responders," General Accounting Office (GAO), November 6, 2003. http://www.gao.gov/new.items/d04231t.pdf.

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²⁵ Viktor Mayer-Schonberger. "Emergency Communications: The Question for Interoperability in the United States and Europe." March 2002.

²⁶ "Statement of Requirements for Public Safety Wireless Communications and Interoperability" SAFECOM Program, Department of Homeland Security, March 10, 2004. http://www.safecomprogram.gov/files/PSCI Statement of Requirements v1 0.pdf

 Deploy a gateway device that establishes an interface between first responder radio systems. The device would receive a transmission from one public safety communications system and rebroadcast it to another.²⁷

While it is important for various federal programs to address the lack of communications interoperability, there is often an abundance of information and a lack of solutions. SAFECOM is attempting to be a clearinghouse for federal information on interoperability. But while technical standards are being debated, first responders are still unable to communicate in many parts of the country.

What Can First Responders Do Today?

Specific remedies for public safety departments are possible and many are underway. For example, public safety departments can obtain standardized handsets or "walkie-talkies" that accommodate both the current emergency radio communications systems and also a commercial mobile radio system (CMRS) operated by one of the 6 "nationwide" mobile radio carriers. These systems allow for additional radio communications capacity, further technical capabilities, and the ability to communicate with other departments if they have the same CMRS technology. Many public safety departments have instituted such CMRS programs independently.

Several technology and communications providers have technologies that can be deployed to achieve interoperability for local public safety departments. For example, Cicso's Aironet is an Internet Protocol (IP)-based system that replaces current radio infrastructure with digital technologies, utilizing the Internet to coordinate communications traffic and allowing a variety of entities and users to access one network for communications needs. The Aironet system uses wireless bridges that allow for connections to various first responder departments and to other institutions in a city or town. Multiple wireless access points can be deployed, providing additional wireless capacity in areas where the communication traffic would be increased.

ARINC's Wireless Interoperable Network Solution (AWINS) is an overlay system, which builds on the traditional radio communications used by public safety departments, and "translates" currently incompatible communications. AWINS can connect all forms of radio and telephone systems, including UHF and VHF analog radios, mobile digital units, voice-over IP systems, ship-to-shore, airground, standard telephones, and push-to-talk cellular devices. This system does not require replacement of current equipment.

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²⁷ "Guide to Radio Communications Interoperability Strategies and Products" AGILE, a Program of the National Institute of Justice, April 1, 2003.

Obtaining Additional Spectrum

Aside from technologies, first responders need additional spectrum resources to achieve full interoperability and deploy cutting-edge systems. The recently released 9/11 Commission report urges that more spectrum be made available for public safety communications.

Digital technologies available today use much less spectrum than the old analog systems that most public safety departments employ for their communications needs. Using digital systems, which transmits everything (voice, video, text) as data, first responders can make more efficient use of their scarce spectrum and utilize new technologies. However, even with these new technologies, it will likely be necessary for the federal government to allocate additional spectrum to ensure communications interoperability.

Achieving Interoperability Now

While the estimated dollar figures are daunting and the technical solutions are complicated, there is an opportunity to provide America's first responders with the funding they need and the interoperable communications systems they desperately need. A federal commitment to interoperable communications is needed, not only in creating realistic technical guidelines and standards, but in addressing the pressing funding questions.

Several legislative proposals have been put forth to accelerate federal action on the interoperability crisis. The Public Safety Interoperability Implementation Act (H.R. 3370), introduced by Representatives Stupak, Engel, and Fossella, called for the creation of a Public Safety Trust Fund which would provide grants to first responder departments for communications systems upgrades. In the Senate, the Homeland Security Interagency and Interjurisdictional Information Sharing Act (S. 2701) was introduced by Senator Lieberman and included provisions for creating an Office of Information Sharing to develop a national strategy for achieve communications interoperability.

These legislative efforts are examples of the federal leadership needed to overcome the interoperability crisis. While there are several federal programs (as mentioned previously) ongoing, there is still a lack of coordination. By promoting greater cooperation, federal, state, and local governments can help first responders identify equipment and technology, develop procedures, work with commercial vendors, and share information and best practices, all of which will contribute to interoperability.

The First Response Coalition calls on Congress to act on these and other interoperability proposals and appropriate the necessary funds that will help first responders today. This critical problem can be solved with swift, dedicated action.

America's First Responders Need the Best

Police, fire, and EMS personnel are deservedly praised by policymakers, but unfortunately, often times the praise is not followed by action that meets their critical needs. Americans rely on the heroic actions of our first responders – they must be given the necessary tools to continue protecting our communities. Communications interoperability will make them safer and more effective, and thus we all will benefit.

Faced with insufficient funds, outdated radios, a lack of spectrum, and other hurdles, public safety departments are limited in their response to the most dangerous of emergencies. Technical solutions exist for communications interoperability, but the costs are often too high for individual communities. It will take a coordinated effort from all levels of government, something that has been previously lacking.

Policymakers need strive to make the necessary resources available so first responders can obtain the best technology. The First Response Coalition will continue to call for a decisive federal commitment and sufficient funding to make communications interoperability a reality.

Interoperable communications systems are invaluable to first responders, equally or more so than the hoses, medicines, and other equipment they use on a daily basis. Our first responders need the best we can give them, we now have the opportunity to meet this challenge.